WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:

input means for inputting image data showing an original image;

compressing means for compressing at least a part of said image data; and

embedding means for embedding compression data obtained by said compressing means into said image data so that it is difficult to be identified by the human eyes by converting a part of said image data.

2. An apparatus according to claim 1, wherein said image data is constructed by a plurality of bit planes and said embedding means exchanges said compression data to a lower bit plane.

3. An apparatus according to claim 1, further comprising second embedding means for converting a part different from said part of said image data in accordance with predetermined information, thereby embedding said predetermined information into said image data.

4. An apparatus according to claim 3, wherein said image data is constructed by a plurality of bit planes and said second embedding means exchanges said predetermined information to an upper bit plane,

thereby embedding said predetermined information so that it can be identified by the human eyes.

5. An apparatus according to claim 1, wherein the image data which is converted by said embedding means is included in at least said part of the image data which is compressed by said compressing means.

6. An apparatus according to claim 3, wherein the image data which is converted by said second embedding means is included in at least said part of the image data which is compressed by said compressing means.

7. An apparatus according to claim 1, wherein said image data comprises color components of RGB.

8. An image processing method comprising:

an input step of inputting image data representing an original image;

a compressing step of compressing at least a part of said image data; and

an embedding step of embedding compression data obtained in said compressing step into said image data so that it is difficult to be identified by the human eyes by converting a part of said image data.

9. A storage medium which stores an image

processing program so that it can be read out by a computer, wherein said program comprises:

an input step of inputting image data showing an original image;

a compressing step of compressing at least a part of said image data; and

an embedding step of embedding compression data obtained in said compressing step into said image data so that it is difficult to be identified by the human eyes by converting a part of said image data.

10. An image processing apparatus comprising:

compressing means for compressing image data;

first embedding means for embedding data, as an invisible watermark, showing a result of the compression in said compressing means to a first predetermined bit position of said image data; and

second embedding means for embedding a visible watermark to a second predetermined bit position of said image data.

11. An apparatus according to claim 10, wherein information showing said first predetermined bit position of said image data in which the data is embedded by said first embedding means is key information.

12. An apparatus according to claim 10, wherein the compression by said compressing means is a reversible compression.

13. An image processing apparatus comprising:

compressing means for compressing image data;

encrypting means for encrypting data showing a result of the compression in said compressing means;

first embedding means for embedding the data, as an invisible watermark, encrypted by said encrypting means to a first predetermined bit position of said image data; and

second embedding means for embedding a visible watermark to a second predetermined bit position of said image data.

14. An apparatus according to claim 13, wherein information showing said first predetermined bit position of said image data in which the data is embedded by said first embedding means is key information.

15. An apparatus according to claim 13, wherein the compression by said compressing means is a reversible compression.

16. An image processing method comprising:

a compressing step of compressing image data;

a first embedding step of embedding data, as an invisible watermark, showing a result of the compression in said compressing step to a first predetermined bit position of said image data; and

a second embedding step of embedding a visible watermark to a second predetermined bit position of said image data.

17. An image processing method comprising:

a compressing step of compressing image data;

an encrypting step of encrypting data showing a result of the compression in said compressing step;

a first embedding step of embedding the data, as an invisible watermark, encrypted in said encrypting step to a first predetermined bit position of said image data; and

a second embedding step of embedding a visible watermark to a second predetermined bit position of said image data.

18. A computer-readable storage medium which stores a program for executing an image processing method, wherein said method comprises:

a compressing step of compressing image data;

a first embedding step of embedding data, as an invisible watermark, showing a result of the

compression in said compressing step to a first predetermined bit position of said image data; and

a second embedding step of embedding a visible watermark to a second predetermined bit position of said image data.

19. A computer-readable storage medium which stores a program for executing an image processing method, wherein said method comprises:

a compressing step of compressing image data;

an encrypting step of encrypting data showing a result of the compression in said compressing step;

a first embedding step of embedding the data, as an invisible watermark, encrypted in said encrypting step to a first predetermined bit position of said image data; and

a second embedding step of embedding a visible watermark to a second predetermined bit position of said image data.